Power Schemes for Tamil Nadu

1932. SHRI K. V. THANGKABALU: Will the Minister of ENERGY be pleased to state: '

(a) whether some power schemes have been sanctioned during the last four years for implementation in Tamil Nadu; and

(b) if so, the names of the places where these schemes are likely *to,* be implemented?

I THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRI KALP-NATH RAI): (a) and (b) The required information is given below:—

Name of the Project	Location (District)
1. Tuticorin stige III (Therm'1) (2x210 MW) . . .	Tuticorin
2. North Madr-.s CRP (Thermal) Stage I (3x210 MW) .	Madras
3. Pylora Ultimate Stage (hydro) (3x50 MW) . . .	Nilgiris
4. S.thmur Dam (Hydro) (2x 7.5 MW) . . .	North Arcot
5. Lower Bhiwani Dam (Hydro) R.B.C. (2x4 MW) .	Coimbatore

Wind power units in Bangalore

1933. SHRI RAM AWADHESH SINGH: Will the Minister of ENERGY be pleased to state:

(a) whether it is a fact that imported wind power units were installed by Government at the Imperial Dairy Research Institute Audugodi, Bangalore and Agriculture College, Hebbal, Bangalore some 55 years ago, for trial;

(b) if so, what are the results of trials conducted and experience gained thereby; and

(c) whether these units are performing well at present?

THE MINISTER OF ENERGY (SHRI VASANT SATHE): (a) to (c) Information on installation of imported wind power units at the two institutions in Bangalore, 55 year ago, is not available.

However, it is reported that one wind mill was installed at the Southern Regional Station of National Dairy Research Institute, Bangalore in 1965 by National Aeronautical Laboratory. The windmill was not found suitable in that location.

Use of alcohol as fuel

1934. SHRI RAM AWADHESH SINGH: Will the Minister of ENERGY be pleased to state:

(a) whether DNES had conducting re search into prospects of using alcohol as a substitute of fuel as part of a national policy as indicated at a National Work shop at Dehradun on November 5, *1984* and reported in the Statesman of Novem ber 6, 1984; and

(b) if so, what is the present position of the project?

THE MINISTER OF ENERGY (SHRI VASANT SATHE): (a) Yes, Sir.

(b) Research is being conducted into prospects of using methanol and ethanol as substitute fuel. The Department of Non-Conventional Energy Sources has also been investigating the suitability of petro-crops for alternative liquid hydro carbon materials. Studies 'have been made on 54 potential petro-crops and hydro cracking of the same has also been undertaken. Samples are characterised in terms of gases, naptha, kerosene gas oil and water. These studies clearly indicated the feasibility of obtaining petroleum, hydro carbons from petro-crops. Research in bio-technology is also being directed to evolve more efficient processes for conversion of cellulose to alcohol.

The studies indicated that in the Indian situation methanol gives possibilities of

utilising a wider resources base (as it can be produced from gas, coal and bomass) while ethanol could also be considered it" research and development in cellulosic conversion to ethanol or other bio-solar technologies are successful and lead to vastly increased quantities of ethanol. The Department of Non-Conventional Energy Sources is spearheading R&D in all these areas. As a result, the technology for the use of methanol in engines to replace diesel upto 15 to 20 per cent has been developed in co-operation with the Indian Institute of Petroleum, Dehradun. The introduction of methanol also results in marked improvement in the quality of exhaust due to significant reduction is smoke and noxious oxides.

The Department of Non-Conventional Energy Sources followed this up by a R&D project for field trials. Under this programme, ten Delhi Transport Corporation (DTQ buses are now running in Delhi in different routes with methanol/diesel fuel, so that feed back data of the per-formace of the vehicles & engines would be obtained under actual commuting conditions. The buses have already covered 4,00,000 kms. So far they have not faced any operational difficulty on account of methanol introduction. The trial also con- firms the expected improvement in the quality of exhaust from the environmental point of view.

On ethanol, apart from demonstrating that ethanol can be used as a fuel in engines, R&D has resulted in the development of processes for efficient conversion of cellulosic material to ethanol. A pilot plant sponsored by Department of Non-Conventional Energy Sources is under construction at the IIT, Delhi campus to develop these processes towards on industrial scale.

Use of lead In petrol

IT 1935. SHRI RAM AWADHESH SINGH: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether Government are aware that India is using 3-4 times more lead in petrol than in other countries, leading to heavy pollution;

(b) whether research work undertaken by Goveernment on the subject has been completed, if so, with what results;

(c) whether Government are aware that EEC, Brazil Sweden and several other countries have stopped the use of tetra-lead and thereby reduced pollution greatly; and

(d) whether Government will ban the use of lead in petrol?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHM DUTT): (a) to (d) The existing B.I.S. specifications or lead content in petrol in India is 0.56 gms/ litre (maximum). The average lead content in 87 octane petrol presently produced in the refineries in the country varies from 0.10 to 0.45 gms|litre.

In some of the developed countries, the lead content is gasoline (Petrol) is limited to a maximum of 0.15 gms|litre. Some of them also market a separate grade of lead-free gasoline.

Based on studies undertaken in the country in this area, the Government has initiated action to bring down the lead content of petrol in India to 0.15 gms|litre maximum by installining additional facilities in the refineries, as required.

STD facility in Rajasthan

1936. SHRI SANTOSH BAGRODIA: Will the Minister of COMMUNICATIONS be pleased to state:

(a) whether Government have finalised any plan to provide STD facility in more cities in the country during the years 1988-89 and 1989-90; and

(b) if so, the names of the cities which will be covered in Rajasthan during the above period?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS (SHRI GIRDHAR GOMANGO): (a) and